CLAIMS

What is claimed is:

1. A method to ameliorate berylliosis in a subject comprising the step of administering to a subject a therapeutically effective amount of a porphyrin analogue or a pharmaceutically acceptable salt, ester, amide, or prodrug thereof, such that berylliosis in the subject is ameliorated.

2. A packaged pharmaceutical composition to treat berylliosis in a subject comprising a container that holds a therapeutically effective amount of at least one porphyrin analogue and pharmaceutically acceptable salts, esters, amides, and prodrugs thereof;

and instructions for use of the porphyrin analogue for the treatment of berylliosis in the subject.

3. The packaged pharmaceutical of claim 2, wherein the porphyrin analogue or pharmaceutically acceptable salt, ester, amide, or prodrug thereof is administered as an aerosol.

4. The packaged pharmaceutical of claim 3, wherein the aerosol is administered in conjunction with an inhaler.

5. The packaged pharmaceutical of claim 2, wherein the porphyrin analogue is hemin, meso-tetra (4-carboxyphenyl) porphyrin, phthalocyanine tetrasulfonate, meso-tetra (4-sulfonatophenyl) porphyrin, or magnesium phthalocyanine tetrasulfonate tetra sodium salt porphyrin.

6. The packaged pharmaceutical of claim 2, wherein the porphyrin analogue comprises at least 4 interconnected heteroatoms in an organic structure that provides a binding site for a metal ion associated with berylliosis.

7. The packaged pharmaceutical of claim 6, wherein the heteroatoms are each independently nitrogen, oxygen, sulfur, or selenium and combinations thereof.

8. The packaged pharmaceutical of claim 7, wherein each of the four heteroatoms are nitrogen atoms.

9. The packaged pharmaceutical of claim 7, wherein at least two of the four heteroatoms are nitrogen atoms.

10. The packaged pharmaceutical of claim 7, wherein the porphyrin analogue has at least one functional group appended thereto.

11. The packaged pharmaceutical of claim 10, wherein the functional group comprises a sulfur moiety.

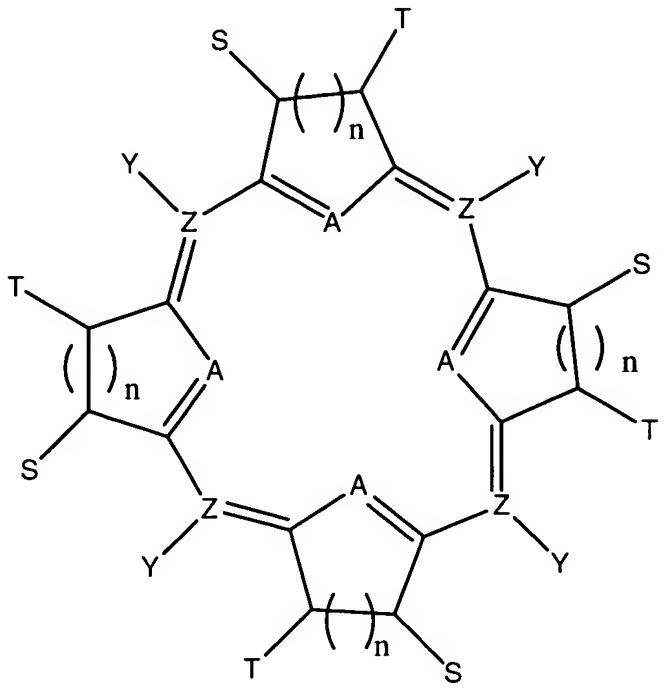
12. The packaged pharmaceutical of claim 11, wherein the sulfur moiety is a sulfonate.

13. The packaged pharmaceutical of claim 10, wherein the functional group comprises a carboxylate.

14. The packaged pharmaceutical of claim 13, wherein the porphyrin analogue chelates the metal ion associated with berylliosis.

15. The packaged pharmaceutical of claim 14, wherein the metal ion is an element, a metal oxide, a mineral or a metal salt.

16. The packaged pharmaceutical of claim 6, wherein the porphyrin analogue has the following formula (Formula I):



Formula I

wherein each A, independently, is a heteroatom;

each Z, independently, is a carbon atom or a heteroatom;

each Y, independently, is a hydrogen atom, a functional group or when Z is a heteroatom, forms part of a double bond;

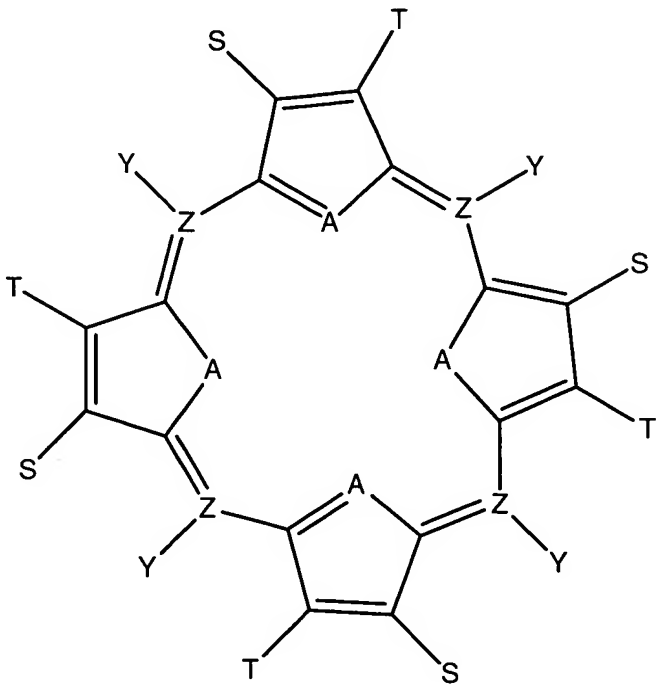
S and T are each, independently, a functional group or together form a ring;

and each n is an integer of 1 or 2 to complete the carbon chain.

17. The packaged pharmaceutical of claim 16, wherein each A is a nitrogen atom, each Z is a nitrogen atom or a carbon atom, S and T together form a pyrrole or a phenyl group, and n = 1, wherein the pyrrole or phenyl group is substituted with at least one sulfur containing moiety.

18. The packaged pharmaceutical of claim 17, wherein the sulfur containing moiety is a sulfonate.

19. The packaged pharmaceutical of claim 6, wherein the porphyrin analogue has the following formula (Formula II):



Formula II

wherein each A, independently, is a heteroatom;

each Z, independently, is a carbon atom or a heteroatom;

each Y, independently, is a hydrogen atom, a functional group or when Z is a heteroatom, forms part of a double bond; and

S and T are each, independently, a functional group or together form a ring.

20. The packaged pharmaceutical of claim 19, wherein each A is a nitrogen atom, each Z is a nitrogen atom or a carbon atom, S and T together form a pyrrole or a phenyl group, and wherein the pyrrole or phenyl group is substituted with at least one sulfur containing moiety.

21. The packaged pharmaceutical of claim 20, wherein the sulfur containing moiety is a sulfonate.